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ABSTP ACT

This document reports the results of a checklist questionnaire administered to two different groups of educational project managers. Study results are reported in both tabular and descriptive forms. Copies of the initial and revised checklists are appended. (LIR)





An Investigation of the Responsibilities and Duties
of Educational Project Managers

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE OFFICE OF EDUCATION

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September 1970

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An Investigation of the Responsibilities and Duties of Educational Project Managers

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The Problem

The concept of Project Management (also referred to as Systems Management and Program Management) has been evolving for more than two decades primarily as a correlate of large scale governmental mission oriented activities. While its general origin is traced to the military establishment, the concept has entered into other areas of the economy, particularly in business and industry. New techniques and procedures (e.g., PERT, CPM, matrix or overlay organizational structures) have been developed and operationalized in order to provide project managers with assistance in achieving mission goals within time, cost, and performance specifications while working under degrees of complexity and uncertainty.

Within the past several years, the educational community has recognized the need for better project management if significant changes are to be brought about in the educational enterprise. This need has developed as a consequence of the acceleration of federal funds into educational activities on the one hand and the public demand for educational efficiency and accountability on the other.

Even though a need exists with regard to educational project management, available knowledge regarding its role in education is relatively small. Most of the literature devoted to the concept is



addressed to business, industry, and the military services. The educational situation has certain characteristics which require modification of the concept if it is to be successfully utilized. Among such characteristics are the traditional nine-month school year and the lack of freedom to employ and discharge personnel as needed according to project resource requirements.

Systematic efforts have been initiated to advance the knowledge about project management but they have been directed largely to the study of tools and techniques. A prime example was the development project undertaken by Cook to study the applicability of PERT to educational research and development activities. The success of this effort lead to the subsequent funding, by the Research Training Branch of the Office of Education, of two series of training institutes in order to disseminate information about relevant management tools and techniques to educational research and development personnel.

Two major observations derived from the series of training sessions. First, tools and techniques like PERT are subservient to the more general concept of project management. Second, a strengthening of the recognition that the duties and responsibility of project managers in education are not isomorphic to those in business and industry due to the institutional characteristic as noted earlier. A better understanding of the function of project management in education therefore becomes a prerequisite for effective development of subsequent training programs and the employment of the concept on projects.



The Educational Program Management Center established as one of its major objectives for the 1969-70 year the exploration of the concept of project management as it functions in the local educational setting. This report presents an accomplishment with regard to one subobjective of this larger objective. The specific sub-objective focuses upon identification of the duties, responsibilities, and authority associated with the position of project manager in an LEA.

It was felt that identification of these characteristics was an appropriate place to initiate work on the objective since many writers discussing success and failure of project management have stressed the importance of these factors. Chear patterns of authority and responsibility are deemed necessary if the project manager is to have the freedom to adjust project plans and operations as necessary to achieve project objectives within time, cost, and performance specifications. Failure by the organizational structure to provide such clarification has been pointed out as a leading cause of project efforts being largely unsuccessful and the project management concept being abandoned as unworkable.

The Procedure

The original plan for the study called for a review of the literature on project management to be made from which an instrument would be developed and eventually administered to a sample of local education agency project managers. An unexpected opportunity to secure empirical data arose when the senior author was invited to present concepts of project management to the Program Auditor



Institutes sponsored by the Bureau of Elementary and Secondary Education, Office of Education, in connection with the "accountability" concept being implemented in Titles VII and VIII of ESEA as amended in 1967.

During the summer of 1969, a review of existing books, journals, and related publications on project management was made in order to establish a list of duties and responsibilities. The review was continued until it appeared that the search was producing redundant information with regard to the desired variables. The identified duties and responsibilities were assembled into a checklist with the series of statements categorized under the management functions of planning, organizing, directing, and controlling. An assumption was made that the individual statements could be validly so classified. Several of the identified duties and responsibilities could not be discretely classified with a given function, so were repeated under different functions. A copy of this initial checklist is attached to this report as Appendix A.

As noted above, the original intent was to administer the checklist to a representative sample of educational project managers but
the availability of the convenience sample lead to the initial administration of the checklist. Recognition is made here of the limitations of using such a sampling procedure but a decision was made that
the participants represented a rather typical cross section of those
persons who might reasonably be considered as potential project
managers or actually employed as project managers. A brief description of the convenience sample might be helpful.



The implementation of the accountability concept and its associated concept of Independent Educational Auditing as part of the Bilingual and Dropout Prevention Programs of BESE required that a training period be established and conducted. The concept of Project Management was included as one of the topics to be included in the overall training package. Participants to attend the several training sessions, held in Washington and Newport Beach, were drawn from the several funded projects. Three major position types were drawn from each project; project manager (or director), the project evaluator, and the independent educational auditor. The first two were actual project staff members whereas the third position was usually established by a contractual arrangement with an agency outside the project.

The training program specifications stated that a pretestposttest arrangement was to be made for each presentation. For the
initial session of four planned sessions, a locally constructed
multiple choice type achievement examination focusing principally
on network techniques was used in connection with the Project Management component. Failure of many persons to complete the pretest
(administered by mail) and the lack of relevancy of the test to the
presentation due to the reduction of original time limits allowed
for the presentation led to a decision not to use the achievement
examination at the second planned session. After some consideration,
a decision was made to employ the initial checklist as a substitute
for the pretest-posttest procedure. It was felt that the checklist
might serve as a motivating device for the topic, provide a basis for
discussion after the presentation, as well as provide data for the
study.



The initial checklist was administered to approximately 60 participants at the second training session held in Washington, D. C. on October 17-19, 1969. Respondents were asked to indicate their position in the project, their institutional affiliation, and their experience with project management. One administration of the checklist was made prior to the presentation with the respondents being asked to check those duties and responsibilities which they believed should be performed by a project manager. The checklist was administered again after an approximate two-hour presentation on project management. The participants were told on this administration to check those duties and responsibilities which they actually performed. This arrangement has the appearance of a simple quasi-experimental design although this was not the intent of the procedure. It was anticipated that the first administration would reflect the respondents about how they saw their present positions and that the second administration might reflect how they might actually perform in terms of increased knowledge about project management. To this extent, the presentation could be viewed as a treatment affecting answers on the second administration.

Of the total group, 40 participants completed both administrations and their responses were used in subsequent data analysis.

A test of correlated proportions was used to determine significant differences between responses on the two administrations. It was hoped that this procedure would help to identify those duties and responsibilities which had the greatest discrepancy between should and actual conditions. In some cases, the small number of participants associated with an agency or institution lead to samples being



too small for meaningful analysis. Data were combined into more general categories when this happened.

The data produced confounding results between the items classified under the several management functions because of ambiguity and duplication of items as shown in the results section. Further, there was some dissatisfaction because the scale was not designed for meaningful statistical analysis and the items were not exhaustive of the project management duties and responsibilities.

Efforts were undertaken to revise the initial checklist.

Another review was made of the literature to make sure that a more exhaustive list was generated. The form of the checklist was changed with the classification of items under the several management functions being eliminated and along with duplicate items. A copy of the revised checklist is included as Appendix B.

The revised checklist was administered at the third session of Auditor Institutes held at Newport Beach, California in November, 1969. Prior to the presentation on project management, the participants were asked as before to check those duties and responsibilities which they felt a project manager should carry out. A total of 83 persons completed useful instruments for analysis. No second or posttest administration was made in view of an adjustment in the training program specifications reducing the sheer amount of pretest-posttest arrangements. To secure a sample of actual duties and responsibilities, the checklist was administered as a posttest at the fourth session of the Auditor Institutes held also at Newport Beach in November 1969. Due to modified arrangements, the presentation on project management was moved from an initial session in the total program to the last session on the third day. Consequently, a large number of possible respondents had left the session. A total of 40 useful responses were



secured from this administration.

Responsible to the administration of the revised checklist were processed thing the Ohio State Questionnaire Analysis Program. In addition to frequency and percentage of responses, the OSQA provides approximate the insertion of the revised checklist were processed thing the Ohio State Questionnaire Analysis Program. In addition to frequency and percentage of responses, the OSQA provides approximate the insertion of the revised checklist were processed thing the Ohio State Questionnaire Analysis Program. In addition to frequency and percentage of responses, the OSQA provides approximate the insertion of the revised checklist were processed thing the Ohio State Questionnaire Analysis Program. In addition to frequency and percentage of responses, the OSQA provides approximate the object of th

The Results

As described earlier, the data were collected by the use of an initial and revised checklist. The presentation of results and findings will collow this same pattern. The results from the initial checklist are presented first followed by the revised checklist results.

Initial Checklist

The data from the analysis of the checklists from the 40 persons completing both administrations is presented in Table 1. The table summarizes the frequency and proportion of responses for the items classified under the management functions of planning, organizing, directing, and controlling respectively. Table 1 also presents the "z" value of the ed from the test of correlated proportions. The positive or negative sign associated with the tabled "z" value indicates shift in frequency of response from the first administration to the second administration. In this case, these changes here would reflect a change from what should be duties and responsibilities to what were considered to be actual duties engaged in by the participants attending the institutes.

Inspection of the frequencies and proportions presented in Table 1 reveals that there was a high degree of consistency between should and actual responses with a few exceptions. In the cases of



TABLE 1 - Should versus Actual Duties and Responsibilities: Initial Checklist (N=40)

| | | FREQUE | VCY | PERCENT | ŗ | |
|----------------|--|----------|------------|------------------|-------------------------|----------------------|
| T | ASKS - Planning | Should | Actual | Should | Actual | 7. |
| 1. 2. 3. | Preparing the initial proposal Select the project staff Identify all resources, personnel and physical facilities needed to | 36 40 | 39 33 | 90 100 | 98 8 3 | 1.34 -2.65* |
| 4. | accomplish the project Design all phases of the project | 32 12 | 35 20 | 80 30 | 8 8 50 | . 8 3 1.15 |
| 6. | Concentrate attention solely on one project at a time Work on several projects at one | 24 | 55 | 60 | 55 | 34 |
| 7. | time Develop financial needs of the | 8 | 10 | 20 | 25 | .22 |
| 8. | project Assign personnel to specific pro- | 39 | 36 | 98 | 90 | -1.34 |
| 9. | ject tasks Use a management control technique for planning and scheduling | 32 | 32 | 80 | 80 | •00 |
| 10. | (PERT, Gantt, and milestone charts, etc.) Obtain physical facilities to | 32 | 38 | 80 | 9 5 | 1.90 |
| 11. | house project staff Have flexibility in designing pro- | | 26 | 70 | 65 | 39 |
| 12. | ject within predetermined specifi- cations Closely define authority and re- | 36 | 36 | 90 | 90 | •∞ |
| 13. | sponsibility of subordinates Participate in project design Have professional competence in | 32 38 | 33 38 | 8 0 95 | 83 9 5 | .26 .00 |
| 15. | specific area under investigation in project Designate funds to various phases | 36 | 31 | 90 | 78 | -1.39 |
| 16. | of the work within the project Establish important milestones | 38 | 33 | 95 | 8 3 | -1.67 |
| 17. | for the project Establish dates at which mile- | 37 | 37 | 93 | 93 | •00 |
| 18. | stones should be accomplished Clearly set forth the respon- | 40 | 38 | 100 | 95 | -1.41 |
| 19. | sibilities of everyone in the project Outline steps needed to be taken | 32 | 33 | 80 | 83 | .26 |
| 20. | to reach objective Submit unsolicited proposals | 31 21 | 3 5 | 78 53 | 88 33 | 1.07 -1.18 |
| 21. | Respond to solicited requests for a proposal | 29 | 20 | 73 | 50 | -1.62 |



^{*} Significant at P = .05 level (two tail test)
** Significant at P = .01 level (two tail test)

TABLE 1 (continued) - Should versus Actual Duties and Responsibilities: Initial Checklist (N=1)0)

| | | FREQUEN | ICY | PERCEN | r | |
|-----|--|---------|--------|--------|--------|-------------|
| | TASKS - Organizing | Should | Actual | Should | Actual | z |
| 1. | Identify all operations need- ed to achieve the objective | 37 | 36 | 93 | 90 | 38 |
| 2. | Select project staff | 39 | 37 | 98 | 93 | -1.00 |
| 3• | Design all phases of the | | ۵. | | | <i>t</i> - |
| 4. | project | 20 | 24 | 50 | 60 | .67 |
| "• | Concentrate attention solely on one project at a time | 25 | 25 | 63 | 63 | •00 |
| 5. | Work on several projects at | رء | 2) | 93 | 03 | •00 |
| [| one time | 13 | 10 | 33 | 25 | 40 |
| 6. | Assign personnel to specific |] - | 1 ~ | } | ~ | - • • • |
| | project tasks | 38 | 32 | 95 | 80 | -1.90 |
| 7. | Authority to assign priority | | 1 | [~ | | |
|] | levels | 35 | 36 | 88 | 90 | •33 |
| 8. | Assign personnel to specific | | | | | |
| | project assignments | 23 | 35 | 58 | 88 | 2.56* |
| 9. | Use a management control tech- | l | | | | |
| l | nique for scheduling (PERT, | 1 | | | | |
| | Gantt, and milestone charts, | | | | | |
| 1,, | etc.) | 37 | 37 | 93 | 93 | •00 |
| 10. | Closely define authority and | 22 | | 00 | ٠, | |
| 11. | responsibility of subordinates | 33 | 33 | 83 | 83 | •00 |
| 17. | Allocate various time periods for completion of different | 36 | 35 | 90 | 88 | 33 |
| 12. | Establish important milestones | 30 | 32 |) 50 | 06 | 33 |
| 12. | for the project | 39 | 34 | 98 | 85 | -1.89 |
| 13. | Establish dates at which | 3,7 | ן סי |) 30 | 1 00 | -1.09 |
| -5. | milestones should be accomp- | 1 | | 1 | 1 | |
| | lished | 36 | 37 | 90 | 93 | .38 |
| 14. | Expect subordinates to give | " | " | \ | ' | " |
| | advice freely | 35 | 30 | 88 | 75 | -1.29 |
| 15. | Clessly set forth the re- | | | | \ '` | |
| } | sponbibilities of everyone | | | | | l |
| | on the project | 31 | 35 | 78 | 88 | 1.07 |
| 16. | Outline steps needed to be | | | | 1 | l |
| | taken to reach objective | 35 | 37 | 88 | 93 | .71 |
| 17. | Obtain physical facilities | | 1 | 1 | | \ |
| | to house project staff | 37 | 33 | 93 | 83 | -1.27 |
| 18. | Designate funds to various | | } | | 1 | İ |
| | phases of work within the | 36 | 1 ,, | | 70 | |
| | project | 36 | 31 | 90 | 78 | -1.39 |

^{*} Significant at P = .05 level (two tail test)
** Significant at P = .01 level (two tail test)



TABLE 1 (continued) - Should versus Actual Duties and Responsibilities: Initial Checklist (N=40)

| | MACKS Discontinu | FREQUE | NCY | PERCEN | r | |
|-----|---|--------|------------|--------|------------|---------------------------|
| | TASKS - Directing | Should | Actual | Should | Actual | 2 |
| 1. | Participate as an active team | | | | | |
| | member | 35 | 31 | 88 | 78 | -1.07 |
| 2. | Coordinate the efforts of all | | | ĺ | ľ | |
| | project staff | 37 | 40 | 93 | 100 | 1.73 |
| 3• | Concentrate attention solely | | 1 | | | |
| | on one project at a time | 18 | 23 | 115 | 5 8 | . 80 |
| 4. | Work on several projects at | | | | | - 6 |
| | one time | 7 | 10 | 18 | 25 | •38 |
| 5• | Use a management control technique for planning and | 1 | | | | |
| | scheduling (PERT, Gantt and | Ĭ | | | | |
| | milestone charts, etc.) | 33 | 37 | 83 | 88 | 1.27 |
| 6. | Authority to assign priority |))) | 31 | 03 | 00 | 1.621 |
| - • | levels | 35 | 38 | 88 | 95 | 1.13 |
| 7. | Closely define authority and | | | | ′′ | |
| | responsibility of subordinates | 31 | 33 | 78 | 83 | .50 |
| 8. | Sole authority for supervision | | | ' | | |
| | of project | 13 | 29 | 33 | 73 | 2.60* |
| 9. | Assign personnel to specific | 1 | | | | <u> </u> |
| | project tasks | 31 | 34 | 78 | 85 | .77 |
| 10. | Report regularly to a higher | | | ļ | | |
| | level (or funding agency) on | | | | , | |
| | progress of project | 29 | 33 | 73 | 83 | .94 |
| 11. | Have authority to make deci- | | Į. | ļ | ļ | Ì |
| | sion on trade-offs between schedules and budgets | 2. | 21. | 88 | 00 | 1 22 |
| 12. | Hold regularly scheduled | 35 | 34 | 00 | 85 | 33 |
| 16. | staff meetings | 37 | 3 3 | 93 | 83 | -1.26 |
| 13. | Record all important work | " |) | 93 | 9 | 1-1.20 |
| -51 | thoroughly | 32 | 30 | 80 | 75 | 47 |
| 14. | Have complete control over | 1 2 | 1 30 | | '' | _•, |
| | budget allocated for the | | | | ļ | Ì |
| | project | 34 | 33 | 85 | 83 | 28 |
| 15. | Allocate funds for approved | | } | | | Ì |
| _ | work | 35 | 33 | 88 | 83 | 58 |
| 16. | Reallocate funds to work | | | | _ | 1 |
| | tasks as necessary | 36 | 33 | 90 | 83 | 90 |
| 17. | Coordinate the efforts of | 1 |] | |] | |
| 3 D | project staff | 39 | 37 | 98 | 93 | -1.00 |
| 18. | Issue periodic progress reports | 38 | 32 | 95 | 80 | -1.90 |
| 19. | All incoming information goes | 22 | 28 | 92 | 70 |] , ,,,, |
| 20. | through project director Expects subordinates to | 33 | 20 | 83 | 70 | -1.15 |
| ~~• | give advice freely | 37 | 29 | 93 | 73 | -2.14* |
| 21. | Have authority to dismiss |) " | ~, | 33 | ' |] ~~ • • • • • • • |
| | staff who are not performing | 36 | 31 | 90 | 78 | -1.39 |
| 22. | Give credit when due to individ- | |] | ~ |) ' " | , |
| - | ual staff members | 38 | 36 | رو ا | 90 | 82 |
| 23. | Outline steps which need to be | | • | | | |
| | taken to reach objective | 37 | 32 | 93 | 80 | -1.51 |

^{*} Significant at P = .05 level (two tail test)
** Significant at P = .01 level (two tail test)





TABLE 1 (continued) - Should versus Actual Duties and Responsibilities: Initial Checklist (N=40)

| | mague and a 22 days | FREQUE | NCY | PERCEN | r | |
|-----|---|------------|------------|--------|--------|--------|
| | TASKS - Controlling | Shouli | Actual | Should | Actual | z |
| 1. | | | | | | |
| • | team member | 19 | 31 | 48 | 78 | +2.19* |
| 2. | Sole authority for super- | | 077 | | | |
| 3. | vision of project Concentrate attention solely | 13 | 27 | 33 | 68 | 5.21* |
| ٥. | on one project at a time | 18 | 33 | 45 | 83 | 2.79* |
| 4. | Evaluate performance of | | 33 | 47 | 03 | 6.19° |
| • | personnel in meeting assigned | | | 1 | ' | |
| | Objectives | 33 | 31 | 83 | 78 | 50 |
| 5. | Use management control tech- | |]]- |] | ' | |
| • | nique for keeping track of | | | | | |
| | project schedules and budget | | | i | 1 | |
| | (PERT, Gantt and milestone | | | | | |
| | charts, etc.) | 32 | 36 | 80 | 90 | 1.15 |
| 6. | Monitor work to assure con- | | | ľ | | |
| | formance to project plan | 31 | 33 | 78 | 83 | -50 |
| 7• | Report regularly to higher | Ì | | | | |
| | level (or funding agency) on | ļ | | ١. | | |
| • | progress of project | 33 | 3 5 | 83 | 88 | •58 |
| 8. | Hold regularly scheduled | . | | 00 | 00 | |
| _ | staff meetings | 3 5 | 33 | 88 | 83 | 58 |
| 9• | Record all important work | | 33 | 00 | 00 | • |
| 10 | thoroughly | 33 | 33 | 83 | 83 | .00 |
| 10. | Have authority to make de- cisions on trade-offs between | | Į. | ļ | | |
| | schedules and budget | 38 | 31 | 95 | 78 | -2.11* |
| 11. | Have complete control over | 30 | 31 | 95 | '0 | -c.TT. |
| *** | budget allocated for the | 1 | | | | |
| | project | 29 | 29 | 73 | 73 | .00 |
| 12. | Allocate funds for approved | 1 | ~ | ' | ' | |
| | work | 36 | 30 | 90 | 75 | 1.60 |
| 13. | Reallocate funds to work tasks | | • | |] '' | |
| | as necessary | 37 | 33 | 93 | 83 | -1.27 |
| 14. | Work on several projects at | } |] | |] | |
| | one time | 8 | 11 | 20 | 28 | •38 |
| 15. | Expects project personnel | | | | | |
| | to carry out all orders | | 1 | _ | | |
| - / | without quibbling | 6 | 14 | 15 | 35 | 1.03 |
| 16. | Have authority to dismiss | | | 00 | | |
| | staff who are not performing | 35 | 31 | 88 | 83 | -1.07 |

^{*} Significant at P = .05 level (two tail test)
** Significant at P = .01 level (two tail test)



duplicate items, there was not always consistency of response. For example, the task "assign personnel to specific project tasks" appeared in three of the functions. Under Planning, the should and actual proportions were the same but in the Organizing function there was a significant change. The same item under Directing showed only a small change from should to actual.

Of the total of 78 items appearing on the checklist (including duplicates), eight were found to be significant at the .05 level using a two-tailed test. The items are listed below by function in which they appeared.

Planning

2. Select the project staff

Organizing

- 8. Assign personnel to specific project task Directing
 - 8. Sole authority for supervision of project
- 20. Expect subordinates to give advice freely Controlling
 - 1. Participate as an active team member
 - 2. Sole authority for supervision of project
 - 3. Concentrate attention solely on one project at a time
 - 10. Have authority to make decisions on trade-offs between schedules and budget

The above results are suspect for two reasons. First, it is quite likely that in conducting approximately 80 tests of significance, eight might be significant by chance alone. Second, it is hard to discover just how the participants were responding. For example, the task "participate as an active team member" appeared on the Directing and



Controlling functions. In the former case, there was a decline from should to actual. In the latter function, there was a significant change from should to actual.

The ambiguity of these kinds of results lead to the revision of the checklist as described in the procedures. The results from the revised checklist are presented in the next section.

Revised Checklist

As described in the procedures section, the results from the revised checklist were obtained from two different groups of respondents in contract to using the same group as in the initial checklist. Three analyses of the responses to the checklist were made. One analysis covered overall differences between should and actual tasks; a second with possible influence of an experience variable in project management; and the third examined the possible influence of a location variable. Each of these three analyses are presented below.

Overall Responses The responses to the several revised checklist items by the shoulds and actual groups are presented in Table 2. Of the total of 57 items, five were observed to have significantly different responses between the two groups. The five items are as follows:

Have sole responsibility for project design
Work on one project at a time
Develop formal budget
Devoted most of management time to the functions of planning
and controlling
Reply to all correspondence related to the project.

For each item, the difference was in favor of the <u>actual</u> groups. In terms of the intent of the checklist, this would be saying that these duties are more often "actually" carried out by project directors than what they should carry out. Substantively, these results would



TABLE 2 - Should and Actual Duties and Responsibilities for Project Managers - Revised Checklist

| | | Should | (N=83) | Actual | (N=40) | Ch1- |
|-------------|---|----------------|-----------------|--------------|------------------|---------------------------------------|
| | Duties and Responsibilities | 4-1 | જ | J. | ğ | Square |
| ٦ | Prepare the initial proposal | 28 | 02 | 33 | 83 | 1.72 |
| ď | tiations | ₫- | ド | 33 | æ : | 1-17 |
| ۳) | Have sole responsibility for project design | 4 X | ^ [~] | 37 | စ္ကဋ္ဌ | • • • • • • • • • • • • • • • • • • • |
| • • • | rojece de | 30 | " " | 20 |) q: | *05 |
| , c | North on one project at a time | 8 | 77 | 70 | 7,4 | 0.0 |
| | Submit unsolicited proposals | おお | 8 | '; |) ස | 000 |
| ထီ | s for a pr | 37 | \$ 1 | ぺ | 8 | 2.57 |
| ٧. | Have professional competence in specific area under investigation | رة: 19: | さん | <u>ښ</u> | ಐ | & & |
| ខ្លុំ | nal research metho | = | R | 71 | 35 | 3.50 |
| i | rossess a significant degree of technical competence in the | 33 | ₹ | 23 | 78 | 50.0 |
| 2 | Be a generalist rather than a specialist | : 전 | 37 | <u></u> 5 | 83 | 21.1 |
| ដ | Identify scheduling constraints | SZ. | 63 | 8 | 2 | 0.58 |
| 77 | Estimate mannower requirements | % | & | 34 | 85 | 0.32 |
| 15. | Have flexibility in designing project within predetermined | | | | (| |
| ` | | 8 | 72 | 33 | 83 | 1.13 |
| <u>ģ</u> | Identify physical facilities necessary for staff and project | Į | ć | ı (| ç | |
| | operation | 97 | ಕ 1 | 35 | - 8: | 8.0 |
| ÷ | |) | ¥ | 51/2 51/2 | χ ς (| 8.8 |
| e e | Select project personnel | * | 8 | <u>-</u> | S. - | 10.0 |
| <u>6</u> | Train and develop personnel in order to carry out the activities | ł | (| Į | | |
| | called for in the project | 51 | 60 | 27 | 0 | 0.04 |
| ର୍ଷ : | Assign personnel to specific project t | | 8 7 | \$ | G. | 8 0 |
| ត់ ខ | | | ā ļ | 0,000 | 86 | ν ς δ ς |
| 3 6 | Define authority lines | ₹ ₹ | == | ჯ. <u>ა</u> | 2 % | 7.00 |
| ; ₹ | | <u> </u> | - ල | K,K | 88 | , k |
| χ, | | 65 | 32 | 38 | 55 | 3.01 |
| 8 | Devel | <u>‡</u> | 53 | 32 | 78 | e-47* |
| 2 | Fave authority to make all decisions relating to project (vertical | | ļ | (| 1 | (|
| 9 | 15ne) | 37 | \$ | 19 | 4 5 | C.01 |
| 8 | Have authority to direct the work on the project, regardless of the organizational level of responsible person assigned to a | | | | | |
| | task (horizontal movement across vertical lines) | 7.4 | 23 | 25 | 63 | 0.37 |
| 8,6 | | 67 46 | ያያ - | ന്ന | బ్రిక్గ | 000 |
| 155 | *Significant at P = .05 level (two tail test) | | | | | |

guificant at P = .05 level (two tail test) guificant at P = .01 level (two tail test)



8.25 *60°L Square 0.13 1.26 1.84 21.0 0.43 0.43 2.8 503 0.0 2.1.0 6.67 0.42 9.0 19.0 1-38 0-38 S 4 4 8 2--2 Ch1-TABLE 2 (continued) - Should and Actual Duties and Responsibilities for Project Managers - Revised Checklist (N=40 2 228 22 28288 8 စ္က 3 3 5 **% £88 %** ~ 8.25 8.25 8 Actual 200 82858 **48884** Q, 88 8 ង្ក 9 8 ょ 7 12222 #4 6 8 m 82 Ç 3727338 (N=83 **%**84 **%**88 99 ₹ H 33 7 33 2 Should 5 355833 355833 65 88524 33 츄 4.4.823.83 23 23 23 33 Eave authority to make decisions on trade-offs between schedules, Use face-to-face communications as the best method to accomplish Possess experience in a sector of the economy other than in the Devote most of management time to the functions of planning and Devote most of management time to the functions of planning and management control technique for planning and scheduling management time to the functions of controlling management time to the functions of controlling management time to the functions of organizing Require all incoming external information to flor through the designate funds to various phases of work within the project management time to the functions of planning have authority to dismiss personnel who are not performing Sstablish dates at which milestones should be accomplished phases of the project based upon talents of project staff Allocate various time periods for completion of different Outline steps needed to be taken to reach objectives Prepare evaluative report at completion of project Should have a degree in Educational Administration Give credit when due to individual staff members Sstablish important wilestones for the project Reply to all correspondence related to project budgets, and performance of project personnel Evaluate the performance of project personnel lever allow slippages or overruns to occur PERT, bar chart, milestone charts, etc. Have suthority to assign priority levels Hold regularly scheduled staff meetings Duties and Responsibilities Record all important work thoroughly Participate as an active team member the menagement job educetion project director Devote most of Devote most of Devote most of Devote most of and organizing and directing and directing end directing controlling organizing feld of 7.85 g.c. 3.03.4.05.E 31. က် ကို ကို £ 55 % \$ \text{\texi}\text{\text{\text{\\xi}\xi}\\\ \text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\ 갻 45 43. 17. 45. 9

indicate that much of the burden of project administration occurs in actual situations whereas in an idealized situation these burdens would be seen as being less desirable.

In addition to the above results, several other observations are of interest. There was a rather strong consistency of frequency and percentage of response to each item in general. Both proups would agree strongly together or disagree strongly together (e.g., items 38 and 52). There was also a rather strong consistency of response to items 51 through 56 where the number and percentage of participants responding to these items was relatively small in both groups compared to the other items with the exception of item 54 as noted earlier. These items were rather broad in nature while the balance of the items were rather specific task oriented. It may have been that the broad statements were not favorably seen because of their vagueness and ambiguity whereas the specific statements were activities falling within the direct experience of the persons attending the workshops. In the case of item 54, an interpretation of the difference might be the fact that the actual group completed the checklist after the presentation on Project Management where these two functions were highly stressed.

The results from the overall analysis of the second checklist can be summarized around one major point. The respondents were pretty much in agreement regarding the activities that would fall into the realm of project management as noted by their agreement on the relative imporance of the duty and responsibility. Their failure to differentiate significantly between should and actual duties except in the case of five items, can be perceived as a lack of difference between the actual situations and the idealized case. The tasks with significant differences in turn focused largely upon duties which can be viewed as



organizational-administrative in nature.

Experience Using information supplied by the respondents, participants were categorized as being experienced or inexperienced in project management. Classification was made on the basis of whether or not the participant had directed or was currently directing a project. Table 3 presents the results of this analysis.

Responses to should and actual duties were pretty much the same for both groups with the individual items following the same patterns of overall percentage of responses. Only a single item (56 - Should have a degree in Educational Administration) was identified as being significantly related to the experience variable. Analysis revealed that the experienced project managers indicated that this was more an actual condition than did the inexperienced project managers.

Inspection of the individual items shows some interesting differences in responses between the two groups on should and actual duties and responsibilities. For example, there is little expression under the shoulds that the project manager have sole responsibility for project design. Under the actuals, there appears to be more of a tendency that this duty is actually assumed under project conditions. An interesting pattern shows in item 21 where both categories of personnel agree that supervision, coordination, and control of the activities of project personnel is actually undertaken by the project manager or director.

It would appear from an overview of data presented in Table 3 that an experience variable does not appear to differentiate strongly the duties and responsibilities that should be or are actually carried out by a project director or manager.



TABLE 3 - Experience as a Factor in Project Management Duties and Responsibilities - Revised Checklist

| _ | | | SHOULD | 3 | | , | | ACTUAL | ig i | | | _ |
|-----------|---|----------------------------|-----------------|----------|---------|--------------|----------|----------------|--------------|--------------|----------------|---|
| _ | Duties and Responsibilities | E() | (97=N) | 7(N=37 | 37) | × | 1 | N=17 | 7 (N | 25 | ď | |
| | | £ | 9 | 6.1 | 8 | ; | | 4 | 9 | 6 | < | |
| | Prepare the initial proposal | 37 | 7), | 10 | 37 | 1.1 | | g | , | ۽ ا | | Т |
| |). Participate to contract secondarious |) C | 1 7 | † C | 0 6 | | <u>_</u> | 88 | 2 (| <u>.</u> | 0.39 | |
| _ | | <u>۲</u> | <u></u> | ₹, | 0 | 3 | <u> </u> | 3 | 21 | 7 | 0.31 | _ |
| | | | ٦, | m | Σ | 0.30 0.00 | _ | [1 | <u>v</u> | 22 | φ , | |
| _ | • | 130 | 7,7 | 17 | - 42 | 0.18 | - | 7,7 | σ | 8 | 0.02 | |
| | 5. Work on one project at a time | ۲- | 15 | អ | 32 | 24.3 | 10 | Ō, | σ | ģ | 3, | |
| _ | | 77 | စ္က | 9 | 16 | 1.66 | ~ | ۱۳ | <u>, (c</u> | 8 | 100 | _ |
| • | 7. Submit unsolicited proposals | 17 | × | - | 2 | 29.6 | 110 | 4 % |) <u>(</u> (| 8 | 4 5 | _ |
| _ | | 3 | ; ₍₎ | 77 | ,œ | 2 | 2 | 30 | ٦- | 10 | 2 0 | |
| | 9. Have professional competence in specific area under | , | | | , | | - | ` | i | 1 | - | _ |
| | . investigation | 33 | 29 | 30 | 8 | 1,53 | 75 | æ | a. | 4 | 0 30 | _ |
| ខ្ព |). Possess a solid background in educational research | | • | , | ! | | ` | } | 4 | <u>-</u> | 70.0 | _ |
| | | 27 | ç | 71 | 7 | 1,33 | 7 | ריז | 7 | 6 | · (| |
| : | | i | ` | ī | ? | 7 | - | 1 | - | 2 |) • | |
| | | ő | 63 | ลี | 75 | 20 | 5 | - | 5 | ć | 73 0 | |
| 끔 | 12. Be a generalist rather than a specialist | 16 | 3 % | 77 | ٥٣ | 3 6 | 4 5 | 7 7 | γα | ט ל ט מ | | _ |
| ដ | Identify scheduling constraints | - - - - - - | 250 | 31 | 3.8 | 18 | 12 | 36 | <u>ک</u> | y Y | 26 | |
| H | | 35 | 2,9 | 1 % | ಹ | 0,40 | ر ا د | 8 | 1 0 | d C | 3 5 | _ |
| 13. | | \ \ | • | <u>-</u> | ; | | <u> </u> | | 7 | 3 | • | _ |
| | determined specifications | 33 | 22 | 3 | 2 | 0 | اعد | ð | 77 | à | | |
| 9, | | 3 | <u> </u> | i | 2 | | } | ζ, | - | 5 | 3 | |
| | project operation | 38 | జ | 53 | 28 | 0.15 | 71 | 8 | 7 | δ | 0.31 | _ |
| 17. | . Secure physical facilities | , d | , CX | 3, | છ | S | ٥ | | 10 | 177 | 0.35 | _ |
| 18 | | 7.7 | 8 | 33 | & | 3 | 17. | 8 | 8 | 8 | 0 | |
| <u>දැ</u> | | | | } | ` |)) | ı _ | } | <u> </u> | 2 | • | _ |
| | activities called for in the project | SX. | 2 | 25 | 88 | 0.03 | 13 | 11 | 17 | 5 | 0.05 | _ |
| 8 | · | 2 | 3 | 31 | ಹ | 0 | 7= | . & | 8 | 38 |) c | |
| 21. | Supervise, coordinate and control the | | • | 1 | , | | I | } | } | , | • | |
| | project personnel | 9 | 8 | 30 | 83 | 0.28 | 77 | 2 | | 8 | 8 | _ |
| ช | | 36 | 28 | 800 | 76 | 0.05 | ř | 7 | | £ |) | _ |
| ຕໍ່ | Define responsibilities of subordinate | 3,5 | 22 | 8 | 29 | ් ට් | 14 | : 33 | | <u>.</u> | | _ |
| <u>ئ</u> | Expect subordinates to give advice freely | 37 | 23 | ば | 25 | 0.93 | 16 | ま | 16 | 2 | 2.36 | |
| ≥ | Notes: E-Experienced, I-Inexperienced | | | | | | | | | | | ٦ |

E-Experienced, I=Inexperienced
*Significant at P = .05 level (two tail test)
**Significant at P = .01 level (two tail test)



TABLE 3 (continued) - Experience as a Factor in Project Management Duties and Responsibilities - Revised Checklist

| | | | SHOULD | | | | | ACTUAL | ا | - | | |
|----------|--|----------|--------------|--------|----------|------------------|----------|-----------|----------|--------------|-------------------|----|
| | Duties and Responsibilities | E(N | E(N=46) | I(N=37 | 37) | ዒ | E | E(N=17) (| I(N=23 | (3) | ٥Ļ | |
| | | £ | 8 | 41 | 3 | | £ | 26 | J. | ď | | |
| 25. | Determine financial needs of project | 37 | 8 | 28 | 76 | 0.19 | 91 | ま | 83 | 8 | 0.01 | |
| 8 | - | 25 | な | 19 | Ľ, | 0.07 | 77 | 88 | 97 | 2 | 1.36 | |
| 27. | | | | | | | | , | | | | |
| | project (vertical line) | ୡ | ‡ | 17 | 746 | 0.05 | 9 | <u></u> | 0 | 39 | 0.75 | _ |
| ဆွ | Have authority to direct the work on the | | | | | | | | | | | |
| | regardless of the organizational level of the | | | | | | | | | | | |
| | responsible person assigned to a task (horizontal | | | | | | | | | | | - |
| | movement across vertical lines) | 88 | 79 | 13 | 51 | 0.7 ⁴ | ង | 7 | 13 | 25 | 0.77 | |
| ૹ૾ | | | | | | | | |) | | | |
| | project | 36 | 89 | ಜ | ත් | 0.25 | 71 | છ | 13 | బ | 8 | |
| ဇ္တ | | જ | ይ | 23 | છ | य•ा | 20 | 23 | 13 | 53 | 0.02 | |
| 31. | | | | ı | | | | | | , | | |
| | scheduling (PERT, bar chart, milestone | 35 | 92 | 9 | 8 | 8°0 | 13 | 17 | 17 | 2 | 0.03 | |
| ĸ | Eave authority to assign priority level | ま | 7. | 31 | <u>ಹ</u> | 8 | <u>'</u> | 8 | 19 | 8 | 8 | |
| 33. | • | 1 | | | | | | | ı | | | |
| | | | | | | | | | | | | |
| | of project staff | 33 | 72 | な | 65 | 0.39 | 검 | に | ω | 22 | 0.23 | 50 |
| ** ** | | | | | | | | | | | | |
| | the project | £ | 72 | 13 | ば | 3.41 | 13 | = | 16 | 2 | 0.19 | |
| 35. | | | _ | | | | | | | | | |
| | between schedules, budgets, and performance of | | | | | | | | | | | |
| _ | | ₹ ~ | 1 | 23 | B | 1.13 | # | 65 | ņ ģ | ဆ | 1.25 | |
| 36. | | 33 | 8 | 88 | 92 | 0.68 | 77. | 8 | 19 | င္ယာ | 8 | |
| 37. | Eave authority to dismiss personnel who are | | | , | | | | _ | | | | |
| - | not performing | 35 | 76 | 98 | 2 | 0.28 | <u>4</u> | 7 | 16 | 2 | 8 | |
| 38 | Give credit when due to individual staff members | 64 | ~ % | 8 | <u>ه</u> | 100 | 97 | ょ | 72 | g G | 0.03 | |
| 39 | Hold regularly scheduled staff meetings | <u>ფ</u> | <u>ස</u> | 8 | ස | 0.05 | 11 | 8 | 21 | 氏 | o . 30 | |
| 3 | Use face-to-face communications as the best method | | | | | | | | | | | |
| | to accomplish the management job | 65 | 8 | ₹ | 8 | 0.03 | 15 | æ | 17 | | င္ လူ | |
| <u>.</u> | Devote most of management time to the functions of | و مند | | | · | | | | | | , | |
| | | 97 | 35 | 17 | 94 | 1.8 | <u>~</u> | 41 | 'n | ผ | 1.48 | |
| Ŋ | Devote most | | | | | | | | | | | |
| | controlling and organizing | ری | ជ | * | # | 8 | | v | <u>ო</u> | អ | 0.20 | |
| , | | | | | | | | | | | | , |



TABLE 3 (continued) - Experience as a Factor in Project Management Duties and Responsibilities - Revised Checklist

| | | _ | SHOULD | 13 | | | | A CATITIA T | ΔŢ | | | . • |
|------------|--|----------|------------|--------|------|----------|----------|-------------|-------------|-------------|--------|-----|
| | Outies and Responsibilities | ğ | N=46) | I(N=37 | =37) | ٥× | E | E(N=17) | T(N=23 | 33) | ď | |
| | | • | % | 94 | 8 | | 4 | 6 | | 1 | • | |
| | | | | | | | | † | † | 1 | | _ |
| <u>†</u> 3 | Devote most of management time to the functions of | | | | | | | | | | | |
| • | planning and organizing | 13 | 1 7 | ω | ช | 3.18 | ~ | 17 | -1 | 17 | o o | |
| ‡ | Devote most of management time to the functions of | | | | _ |) | , | i | | ī | 3 | |
| | planning and controlling | # | ₹ | ~ | œ | 2.05 | ω | 17 | 0 | 90 | 0.25 | |
| 12 | Devote most of management time to the functions of | | | | | • |) | | _ | } |) | |
| | controlling and directing | 2 | 88 | 2 | 19 | 0.40 | ٥ | 5 | 77 | 7. | 5 | |
| ģ | Devote most of management time to the functions of | | | | ` | ! | 1 | | 1 | | * | |
| | planning and directing | 17 | 37 | 11 | 9 | 0.43 | 7 | | - | - 0 | 0 | |
| ÷ | Outline steps needed to be taken to reach objectives | 33 | 62 | 8 | 8.8 | 0 | 7. | 3 | | - }{ | , c | |
| သှံ | Establish important milestones for the project | 7 | 7. | 7 | 2 | ر ا م | \ ? = | 3 & | ά | 10 | 2 5 | |
| 64 | |) | - | } | 2 | 21.5 | <u> </u> | } | 2 | 2 | 2.0 | |
| | accomplished | 33 | 22 | 77. | 65 | 0.30 | 13 | - 44 | - ō | ۳- | אר ט | |
| ပ္ပံ | Mewer allow slippages or overruns to occur | ~ | | .77 |) [| 31.0 | ?- | | 7 | 3 0 |) ÷ | |
| 4 | | • | | | 1 | } | 1 | ·· | > | > | † • | |
| | | 16 | 35 | 8 | 75 | 3.05 | 2 | G. | 13 | 5.7 | 0 | |
| 1 | | 87 | 33 | ಟ | 35 | 0.13 | 2 | \ | 7# | . i | 0.37 | |
| Ķ; | | <u>~</u> | 92 | 7 | 2 | 90,0 | 13 | F | 18 | 182 | 0 | 2] |
| į, | | 88 | দ | 8 | み | 0.38 | 9 | 23: | 2 | : CX | 0 | - |
| <u>ښ</u> | | <u>ಣ</u> | ይ | 8 | 677 | 0.01 | ဂ္ဂ | 25 | ω | 35 | 2.26 | |
| Ŕ! | | 9 | 35 | 7 | 13 | 2.06 | 0 | | a | 0 | 7.65* | |
| ÷ | | - | | | | | | | | | | |
| | tran in the field of education | <u>∞</u> | ස — | ľ | 7. | 0.15 | ~ | <u>ي</u> | 9 | 56 | 0.28 | |
| | | - | | | | | • 1 | i | _ | |) | _ |

#Significant at P = .05 level (two tail test)
#Significant at P = .05 level (two tail test)
##Significant at P = .01 level (two tail test)



Location Following a procedure similar to that for the experience variable, participants were classified at being from a local education agency or some other organizational unit (state department, Office of Education, consulting firm, university). This latter group was labeled as Non-LEA personnel. The categorization was made in order to examine possible relationships under an orientation that all of the projects involved were situated in local school districts. It seemed reasonable that LEA project personnel directly involved in a project might differ in their responses from those not so directly involved.

Analysis of the responses by location is presented in Table 1. The same general pattern of responses was again noted but in this case five items were found to be significant at the .05 level of greater. These items were located in the should category and generally showed greater agreement for LEAs as opposed to non-LEAs. Inspection of the significant items as a group indicates a focus upon what might be called "organizational housekeeping" duties. The responses might be possibly interpreted to reflect a concern on the part of LEA project directors with detail or "record keeping" as reflected in responses to item 54 - "Record all important work thoroughly." As in the case of experience, the LEA project directors felt that a degree in Educational Administration was desirable. It seems reasonable, based upon the results in Table 4 to hypothesize that ther is a concern on the part of the project directors with project detail. This hypothesis might reflect the type of environment in which they operate. This is, these behaviors are what count in the local school district environment generall and therefore they rate highly as desirable duties and responsibilities. Those removed from the environment apparently feel that the type of detail activity



TABLE 4 - Location as a Factor in Project Management Duties and Responsibilities - Revised Checklist

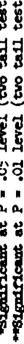
| | | | CINOHS | 13 | | | | ACTURE | 1 | | |
|----------|---|------------|--------------|-------------|------------|----------|----------------|---------------|----------|----------------|-------------|
| | Duties and Responsibilities | T.FA | Ž | N-7/N-37 | V-27 | α, | | | ŀ | | • |
| | | 94 | 8 | - | 1 | < | 4 | W N=CZ) N | 7 . | N=IC) | × |
| | | | | | | | 1 | | 1 | 4 | |
| 4 | | ಜ | 65 | 82 | 76 | 8. | 30 | 8 | ا ۱۳ | 42 | 00 |
| 8 | | Ť | 74 | 8 | చ | 0.42 | ۱۳ | 8 & | 14. | 2 d | 200 |
| m. | Have sole responsibility for project design | | 0 | 0 | 0 | 29-0 | 0 | 17 | ï | 7. | 2 6 |
| 4 | Delegate responsibility for project design | ૪ | 77 | 91 | 43 | 8 | ,: : | 100 | J U | י מ ז | 36 |
| <u>۲</u> | Work on one project at a time | # | 77. | ω | ଧ | ð | 13 | 0,0 | 14 | 3 6 | 25 |
| 9 | Work on several projects at one time | ន | 83 | 2 | 73 | 0.23 | J r | 78 |) # | 3 8 | 3 6 |
| . | Submit unsolicited proposals | 77 | 8 | ឧ | 23 | 0.10 | \ \ \ | 36. | ~ | 17 | 3 7 |
| œ (| | প্ত | 89 | 15 | 14 | 77.0 | ដ | ያ ድ | าส | 15 | 0.0 |
| * | mave processional competence in specific area under investigation | 5 | Î | 8 | 8 | | - | ò | - | • | |
| 8 | | <u>,</u> | <u>.</u> | v | 5 | 70.0 | 2 1 | 8 | 7. | 78 | 0.29 |
| | | 25 | 1 | 01 | 5 | 0.07 | 0 | | U | ď | 97 |
| ដ | Possess a significant degree of technical | ` | | } | (| <u>-</u> | ^ | | `` | ט עכ | ٥ • • |
| | competence in the critical areas of the | | | | | | | | | | |
| (| | 8 | 2 | 22 | 25 | 1.35 | 91 | 73 | 15 | 8 | 0.45 |
| ង | | 17 | 37 | 77 | 8 | 0.0 | 13 | 200 | 70 | , « | 600 |
| 33 | - | 28 | 1 9 | な | 65 | o.13 | က္ခ | /&/ | 2 | 76 | 2.73 |
| 14 | Estimate manyover requirements | 36 | <u>ي</u> | ဇ္က | ස් | 0.07 | 19 | 88 | 15 | 8 | ੈਹੱ 0 |
| दं | | (| | | • | | | | |) | |
| 16 | Paracetamber specifications Therethy phospan footbase | × | 2 | 82 7 | 92 | 0.31 | ದ | % | ង | 29 | 3.28 |
| | | 38 | £ | 8 | ă H | , C | ç | 76 | , | ć | |
| 17. | | 86. | 48 | າເ | 26 | 3.5 | 7 ? | 8 6 | <u> </u> | ט העלי | 500 |
| 87 | | 77 | :& | 331 | . & | 8 | ၇၉ | ~~ % | 2 0 | , J | 20,0 |
| 8 | Train and develop personnel in order to | | | } | | | } | } | | Ļ. | 2 |
| | carry out the activities called for in | ç | { | 7 | ļ | (| , | , | | , | |
| 8 | Assign personnel to snawfore modern | بر بر | N G | ₹ 8 | 5 | 0.39 | 55 | 23 | # | ij, | 0.53 |
| <u>ਲ</u> | | 1 | 3 | 2 | ij | 0.53 | 65 | - | 15 | ည | 0-0 |
| ļ | activities of project personnel | <u>ا</u> : | 8 | 8 | ထွ | 56.0 | 8 | 8. | ער | 5 | 3 |
| 8 | Define authority lines | 35 | 24 | 53 | <u>بر</u> | ð | 8 | 88 | 4 23 | ည္ | 0.0 |
| Note to | | | | | | | | | | | |

ERIC

TABLE 4 (continued) - Location as a Factor in Project Management Duties and Responsibilities - Revised Checklist

| | | | CIDOHS | B | | | | ACTUAL | H | | , |
|--------|--|-----|----------------|-------------|------------|----------------------|--------------|----------|------------|--------------|------|
| | Dutter and Responsibilities | 13 | LEA (N=46) | FI | (N=37) | ኊ |) WEIT | N=2 | N-L(N=18 | =18) | × |
| | | ¥ | ž | ¥ | S. | | 44 | 8 | به | g. | |
| 8 | The state of the s | 28 | 83 | × | 5 | 7.25 | . 0 | & | r- ' | 33 | 10°0 |
| i a | Expect subordinates to give advice freely | 유 | 66 | ដ | 25 | 0.93 | 18 | 3 K | 121 | 67 | 2.33 |
| 8 | Determine financial needs of project | 38 | 8 | 23 | 12 | 0.76 | 8 | ば | 78 | 8 | 0.33 |
| 36. | Develop the formal budget | 27 | 59 | 11 | 9# | 1.33 | 13 | | 엄 | 67 | 1.54 |
| 3 | Have authority to make all decisions relating | | <u> </u> | 7 | (- | , | ; | 6 | t | ć | - |
| 9 | | 72 | ð | 9 | φ 7 |)) | - | ? | | zy Zy | , t |
| 9 | meyerungricy to direct the work on the moject, remardless of the organizational | | | _ | | | | | | | |
| • | level of the responsible person assigned to | | | | | | | | | | |
| | a task (horizontal movement across vertical | | | , | | • | | , | | , | , |
| | lines) | 33 | 22 | 1 | 8 | 9.i3 | 15 | 89 | ឧ | × | 0.63 |
| 8 | Report regularly to a higher level on | | | | , | | | | | , | |
| | | 33 | 85 | ည်း (၁၈) | 92 | 8).0 | <u>ස</u> | 8 | 15 | ლ, | 0.01 |
| ဇ္တိ | | 8 | 57 | ଷ୍ପ | <u>7</u> | 0.05 | ង | 55 | Ħ | 19 | 0.17 |
| ŭ | Use a management control technique for | | | | | | | | * | | |
| | planning and scheduling (PERT, bar chart, | - | 1 | - ; | 6 | | ļ | 1 | (| ć | |
| | | ₩, | 1 1 | 젊 | 3 9 | 8 6 | 11 | <u> </u> | η; | ્ર જ | 9.0 |
| X, | | 36 | 2 | 53 | <u>e</u> | 8 | 67 | 8 | 74 | 2 | 62.0 |
| r M | Allocate various time periods for completion of different phases of the project based | | | | | | | | | | |
| | upon talents of project stuff | ĸ | 2 | 25 | 88 | 0.03 | 17 | 22 | ಬ | 72 | 0.10 |
| # | | 1 | | | | | | | | , | |
| ١ . | | 8 | छ | ₹ | 65 | ٠ <u>٠</u> | <u>8</u> | 8 | # | IJ | 1.70 |
| 35. | Eave authority to make decisions | | | | | | | | | | |
| | offs between schedules, budgets, and | | , | • | | - | | | • | , | |
| | | ନ୍ଧ | မွှေ | გ | 92 | را دور | 97 | 73 | 7 1 | 22 | 0.10 |
| ×, | | క్ల | ₩ | ม | 92 | 9 0 | ğ | 83 | 1; - | წ | 0.0 |
| , , | not performed to dismiss personner who are | 8 | - - | 31 | ಹ | 2.83 | 36 | 73 | 얼 | 29 | 0.15 |
| | | | | | | | | | | | |

LEA= Local Education Agency; N-L=Non-Lea Personnel
"Significant at P = .05 level (two tail test)
"*Significant at P = .01 level (two tail test) Notes





TREER 4 (continued) - Location as a Factor in Project Management Duties and Responsibilities - Revised Checklist

| | | L | SFOUR | a | | | | Δ (**) | | | |
|----------------|--|-----------|--------|--------|-------|----------------|--------|--------------|---------------|----------|--|
| | Parties and Responsibilities | LEA | (97-N) | H | N=37) | α _× | Į. | 1.FA (N=00) | $N_{-1}/N=18$ | V=18) | ۵, |
| | | 9.1 | 8 | | es. | } | 94 | 2 | 9- | 6 | • |
| ç | | | | | | | | | | | |
| <u>,</u> | GIVE CREATE WHEN QUE TO INDIVIOUAL STRIT | ά | 3 | 6 | ά | 8 | - 8 | | | ĩ | (|
| 30 | | 3.5 | S & | 3,5 | 3 5 |) r | 3 8 | : | 7 | まる | 0.0 |
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| <u>;</u> | use lace-to-tace communications as the best method to accommish the management | | | | | | | | | | |
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| 1 | Devote most of management time to the | | 1 | | , | | | |) | ī | • |
| | functions of planning and controlling | ω | 17 | 9 | 16 | 10.1 | 0 | 77 | œ | 77 | 0.05 |
| 45- | | | | | | | ` | 1 | , | | } |
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| 9 | | | | | |) | | ` | | | } |
| | | 13 | 47 | 0 | 5 | 2.36 | 7 | 18 | ~ | 39 | 1.70 |
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| , | reach objectives | 35 | 92 | 318 | 777 | 6.18* | 19 | 8 | 10 | u Y | 3.76 |
| - 1 | Establish important milestones for the | | | | | | | } | 2 |) \ |) |
| | | 뛵 | 67 | 8 | 22 | 8.0 | 18 | B | 14 | 46 | 0.06 |
| 49 | Establish dates at which milestones | | | | | . | | <u> </u> | 1 |) | } |
| | should be accomplished | <u>بر</u> | 2 | 25 | 89 | 0.32 | 18 | <u>ي</u> | 7, | 46 | 7 |
| ያ | Never allow slippages or overruns | | | | | } | | • | 1 | <u>,</u> | , |
| | to occur | Н | a | W | 36 | 1.62 | - | u | C | C | 30.0 |
| 51. | Require all incoming external information | | | | | | | ` | , | , | <u></u> |
| | to flow through the project director | 2,5 | 75 | ដ | စ္က | 76-7 | 7, | 73 | σ | 0 | 0.72 |
| ķ | Reply to all correspondence related to | | | | | | | | ` | • | • |
| | project | e N | 8, | w | 22 | 6.61* | 15 | 99 | 11 | 19 | 0.20 |
| 1 | | | | | | | | | | | |

LEA = Local Education Agency; N=L = Non-Lea Personnel
*Significant at P = .05 level (two tell test)
**Significant at P = .01 level (two tail test) Potec:



TABLE 4 (continued) - Location as a Factor in Project Management Duties and Responsibilities - Revised Checklist

| | | SHOUL | 9 | | (| | ACTUAL | AL | | (|
|---|----|------------|-----------|-------|---------|----------------|---------|-----------|-------|------|
| Duties and Responsibilities | 13 | 74 (N=46) | N-L(N=37 | 1=37) | ٧, |) v ari | A(N=22) | N-L(N=18) | [=18) | × |
| | 41 | <i>3</i> 6 | Ţ | 36 | | £ | 6 | f | þ | |
| 53. Participate as an active team member | 9 | 85 | 23 | 39 | 4.20 | 16 | 73 | 3 6 | 53 | 0.45 |
| St. Record all important work thoroughly | 36 | 78 | ខ្ម | 22 | 17.23** | ឧ | , R. | 10 | 3.6 | 0.0 |
| 55. Prepare evaluative report at completion | | | | | | | | | , | |
| of project | 73 | 65 | 7. | 38 | 3.57 | 7 | ō, | 7 | 39 | 67.0 |
| 56. Should have a degree in Educational | | • | |) | | | | | ` | |
| Administration | 13 | 17 | <i>4</i> | H | 7.63* | 6 | 17 | N | 11 | 3,52 |
| 57. Possess experience in a sector of the | | _ | | | | ` | | | | • |
| economy other than in the field of | | | | | | | | | | |
| education | ۲- | 15 | 9 | 17 | 0.02 | <u>س</u> ر | ຊ | 77 | 22 | 0.01 |
| | _ | | | | _ | | | | | _ |

LEA = Local Education Agency; N-L = Non-Lea Personnel *Significant at P = .05 level (two tail test) **Significant at P = .01 level (two tail test) Totes:

represented by the statements should not be of great concern to the project director or manager. If this relationship is true, it would reinforce a common agreement among writers in the area of project management that persons having project responsibility should have the ability to direct the overall effort and not get bogged down in details of the project.

Location as a variable conditioning response seems to be relatively insignificant. What relationship does exist appears to focus concern on detail associated with a project, particularly in terms of duties and responsibilities which might be classified as organizational housekeeping in nature as viewed by persons serving as actual project directors.

Interpretation of Findings

Any substantive interpretation of the results presented in the prior section must be tempered by the method of data collection. The utilization of convenience samples with largely unknown characteristics is beset with hazards. In the specific case here, possible influences of the overall orientation program and setting may have conditioned participant responses. The a posteriori analysis under a "fishing expedition" approach as reported herein can only serve the purpose of generating hypotheses for possible future studies and not substitute for questions which were not in the original framework of the study. Given such limitations to any interpretation, several general findings might be made based upon the data.

Regardless of the particular format used for the checklist, participants did not seem to express any large number of meaningful



distinctions between what project managers "should" do on their job and what they "actually" do. This condition might be caused by either a failure of the items to discriminate between ideal and actual duties and responsibilities or participant experiences which says there are in fact no differences. The method by which the duties and responsibilities were obtained initially may also have been a factor. An examination of writings on project management may be leading only to recording prior "actual" experiences of project managers. If so, the results might have been predicted in advance. The few observed differences between ideal and actual might be due to particular conditions existing within a specific program or locale rather than any real difference between what a project manager should do and what he actually does.

Experience as a project manager and location of the project director in terms of place of employment did not appear to be variables contributing to pronounced differences in participant responses. What differences did occur seem to focus upon what might be called "housekeeping" functions. Since this finding obtained mostly in the actual duties and responsibilities of local education project managers, the responses might be reflecting the public school concern for detail and a loss of the overall picture which should be the major concern of an effective project director.

The findings presented above could also have been largely influenced by the fact that there was a relatively large number of
persons who were inexperienced in project management. Asking such
persons what should occur may be somewhat meaningless since they
have no real basis from which to judge. In the case of the respondent



groups utilized, even though labeled as experienced may not have had sufficient experience since many had been appointed project directors only waeks before the training sessions.

Based upon the results presented and then interpretation, two condlusions seem apparent.

- 1. Few if any meaningful distinctions can be drawn between between the duties and responsibilities that should be or are actually carried out by educational project managers.
- 2. Where differences do occur, the duties and responsibilities involved tend to focus upon organizational-administrative-housekeeping activities.
- 3. Project management experience and respondents institutional affiliation do not appear to be influential variables.

One apparent weakness of the study, besides the sampling problem, lies on the nature of the instrumentation. If future studies of this type are conducted, prior research and development should be carried out with regard to the instrument. Recommendations for such R and D work include the following actions.

- 1. A field test of the instrument on expert project managers.
- 2. An ordinal or interval scale be developed in order to secure variance in response.
- 3. Clarification of instructions for responding.

The Summary

The purpose of the study was to investigate the duties and responsibilities which educational projects managers should and actually carried. Responses from a convenience sample engaged in project management or associated with project directors revealed similar



acceptance and rejection of selected duties and responsibilities in both the should and actual conditions. Significant differences between should and actual duties and responsibilities centered upon administrative-housekeeping activities actually carried out by project managers. Experience as a project manager and institutional location of the respondent did not appear to be significant variables.



APPENDIX A - Initial Checklist



Educational Program Management Center
College of Education
The Ohio State University
Columbus, Ohio 43210

A Survey of Program/Project Management

The purpose of this survey is to determine the nature of the professional role of Project/Program Manager in Education. At the present time, not too much is known about the types of activities carried out by persons filling the role titled Project Director, Principal investigator, and/or Project Manager.

Listed on the attached pages are sets of items which reflect duties, responsibilities, and activities which appear to have relevance for the position of project manager. These items have been categorized into the four functions of planning, organizing, directing, and controlling. Some overlapping of items exists between these functions but do not become concerned about this situation.

You are asked to place an "X" in front of only those items which you feel the program/project manager should perform as part of his position. Leave blank any item which you feel is not part of his position.

Before proceeding further, complete the items listed below.

| 1. | I am attending this institute in the following role: |
|----|---|
| | Program Evaluator |
| | Program Auditor |
| 2. | My institutional affiliation is as follows: |
| | Local Education Agency |
| | College or University |
| | Non-Profit Educational Agency |
| | State Education Agency |
| | Hanagement Consulting Firm |
| 3. | Have you ever been a project director in the past? |
| | <u></u> Yes . |
| | No . |
| 4. | The last four digits of my SSN are as follows (To be used only for identification): |
| | CARLON REPORT CONTROL CONTROL |

Now complete the rest of the survey.



| PLANNING: | Ρ | LA | NI | N I | N | Ğ | : |
|-----------|---|----|----|-----|---|---|---|
|-----------|---|----|----|-----|---|---|---|

| 1. | Preparing the initial proposal |
|-----|---|
| 2. | Select the project staff |
| 3. | Identify all resources, personnel and physical facilities needed to accomplish the project |
| 4. | Design all phases of the project |
| 5. | Concentrate attention solely on one project at a time |
| 6. | Work on several projects at one time |
| 7. | Develop financial needs of the project |
| 8. | Assign personnel to specific project tasks |
| 9. | Use a management control technique for planning and scheduling (PERT, Gantt and milestone charts, etc.) |
| 10. | Obtain physical facilities to house project staff |
| 11. | Have flexibility in designing project within predetermined specifications |
| 12. | Closely define authority and responsibility of subordinates |
| 13. | Participate in project design |
| 14. | Have professional competence in specific area under investigation in project |
| 15. | Designate funds to various phases of the work within the project |
| 16. | Establish important milestones for the project |
| 17. | Establish dates at which milestones should be accomplished |
| 18. | Clearly set forth the responsibilities of everyone in the project |
| 19. | Outline steps needed to be taken to reach objective . |
| 20. | Submit unsolicited proposals |
| 21. | Respond to solicited requests for a proposal |



ORGANIZING:

| 1. | Identify all operations needed to achieve the objective |
|-----|--|
| 2. | Select project staff |
| 3. | Design all phases of the project |
| 4. | Concentrate attention solely on one project at a time |
| 5. | Work on several projects at one time |
| 6. | Assign personnel to specific project tasks |
| 7. | Authority to assign priority levels |
| 8. | Assign personnel to specific project assignments |
| 9. | Use a management control technique for scheduling (PERT, Gantt, and milestone charts, etc.) |
| 10. | Closely define authority and responsibility of subordinates |
| 11. | Allocate various time periods for completion of different phases of the project based upon talents of project staff. |
| 12. | Establish important milestones for the project |
| 13. | Establish dates at which milestones should be accomplished |
| 14. | Expect subordinates to give advice freely |
| 15. | Clearly set forth the responsibilities of everyone on the project |
| 16. | Outline steps needed to be taken to reach objective |
| 17. | Obtain physical facilities to house project staff |
| 18. | Designate funds to various phases of work within the project |



| DIRECTING | <u>i:</u> |
|-----------|---|
| 1. | Participate as an active team member |
| 2. | Coordinate the efforts of all project staff |
| 3. | Concentrate attention solely on one project at a time |
| 4. | Work on several projects at one time |
| 5. | Use a management control technique for planning and scheduling (PERT, Gantt and milestone charts, etc.) |
| 6. | Authority to assign priority levels |
| 7. | Closely define authority and responsibility of subordinates |
| 8. | Sole authority for supervision of project |
| 9. | Assign personnel to specific project tasks |
| 10. | Report regularly to a higher level(or funding agency) on progress of project |
| 11. | Have authority to make decision on trade-offs between schedules and budgets |
| 12. | Hold regularly scheduled staff meetings |
| 13. | Record all important work thoroughly |
| 14, | Have complete control over budget allocated for the project |
| 15. | Allocate funds for approved work |
| 16. | Reallocate funds to work tasks as necessary |
| 17. | Coordinate the efforts of project staff |
| 18. | Issue periodic progress reports |
| 19. | All incoming information goes through project director |
| 20. | Expects subordinates to give advice freely |
| 21. | Have authority to dismiss staff who are not performing |
| 22. | Give credit when due to individual staff members |



23. Outline steps which need to be taken to reach objective

CONTROLLING:

| 1. | Participate as an active team member |
|----------|---|
| 2. | Sole authority for supervision of project |
| 3. | Concentrate attention solely on one project at a time . |
| <u> </u> | Evaluate performance of personnel in meeting assigned objectives |
| 5. | Use management control technique for keeping track of project schedules and budget (PERT, Gantt and milestone charts, etc.) |
| 6. | Monitor work to assure conformance to project plan |
| 7. | Report regularly to higher level (or funding agency) on progress of project |
| 8. | Hold regularly scheduled staff meetings |
| 9. | Record all important work thoroughly |
| 10. | Have authority to make decisions on trade-offs between schedules and budget |
| 11. | Have complete control over budget allocated for the project |
| 12. | Allocate funds for approved work |
| 13. | Reallocate funds to work tasks as necessary |
| 14. | Work on several projects at one time |
| 15. | Expects project personnel to carry out all orders without quibbling |
| 16 | Have authority to dismiss staff who are not performing |



APPENDIX B - Revised Checklist



Educational Program Management Center College of Education The Ohio State University Columbus, Ohio 43210

A Survey of the Duties and Responsibilities of a Program/Project Manager

The purpose of this survey is to determine the nature of the professional role of the Program/Project Manager in Education. At the present time, not much is known about the types of activities performed by persons filling the role titled Project Director, Principal investigator, and/or Project Manager.

Listed on the following pages are statements which reflect duties, responsibilities, activities and characteristics which appear to have relevance for the position of Project Manager.

You are requested to place an "X" in front of only those statements which you feel should pertain to a Program/Project Manager. Leave blank any item which you feel is not a part of his position.

| ١. | i nave | performed or am performing as a Project manager |
|----|-----------------|---|
| | | Yes |
| | | No |
| 2. | My inst | titutional affiliation is: |
| | | Local Education Agency |
| | | College or University |
| | | State Education Agency |
| | Particular 1944 | Non-Profit Educational Agency |
| | | Management Consulting Firms |
| | | Other (Specify) |
| | | |



| 1. 2. 3. 4. 5. | Prepare the initial proposal Participate in contract negotiations Have sole responsibility for project design Delegate responsibility for project design Work on one project at a time |
|---------------------------------|--|
| 6. 7. 8. 9. 10. | Work on several projects at one time Submit unsolicited proposals Respond to solicited requests for a proposal Have professional competence in specific area under investigation Possess a solid background in educational research methodology |
| 11. 12. 13. 14. 15. | Possess a significant degree of technical competence in the critical areas of the project Be a generalist rather than a specialist Identify scheduling constraints Estimate manpower requirements Have flexibility in designing project within predetermined specifications |
| 16 17 18 19 20. | Identify physical facilities necessary for staff and project operation Secure physical facilities Select project personnel Train and develop personnel in order to carry out the activities called for in the project Assign personnel to specific project tasks |
| 21. 22. 23. 24. 25. | Supervise, coordinate and control the activities of project personnel Define authority lines Define responsibilities of subordinates Expect subordinates to give advice freely Determine financial needs of project |
| 26. 27. | Develop the formal budget Have authority to make all decisions relating to project (vertical line) |
| 28. | Have authority to direct the work on the project, regardless of the organizational level of the responsible person assigned to a task (horizontal movement across vertical lines) Report regularly to a higher level on progress of project |
| 30. 31. | Prepare written technical progress reports Use a management control technique for planning and scheduling (PERT, bar chart, milestone charts, etc.) |
| 32. 33. | Have authority to assign priority levels Allocate various time periods for completion of different phases of the project based upon talents of project staff Designate funds to various phases of work within the project |
| 35. | Have authority to make decisions on trade-offs between schedules, Ludgets, and performance of project personnel Evaluate the performance of project personnel |
| 37. 38. 39. 40. | Have authority to dismiss personnel who are not performing Give credit when due to individual staff members Hold regularly scheduled staff meetings Use face-to-face communications as the best method to accomplish the management job |
| T.C. | * 1 U |

| | 41. | Devote most of management time to the functions of organizing and directing |
|---------------|-------|--|
| | 42. | Devote most of management time to the functions of controlling and organizing |
| . | 43. [| Devote most of management time to the functions of planning and organizing |
| | 44. | Devote most of management time to the functions of planning and controlling |
| | 45. | Devote most of management time to the functions of controlling and directing |
| | | Devote most of management time to the functions of planning and directing |
| 4 | 47. | Outline steps needed to be taken to reach objectives |
| | 48. | Establish important milestones for the project |
| | 49. | Establish dates at which milestones should be accomplished |
| | 50. | Never allow slippages or overruns to occur |
| | 51. | Require all incoming external information to flow through the project director |
| | 52. | Reply to all correspondence related to project |
| | 55. | Participate as an active team member |
| | 54. | Record all important work thoroughly |
| | 55. | Prepare evaluative report at completion of project |
| | 56. | Should have a degree in Educational Administration |
| | | Possess experience in a sector of the economy other than in the field of education |
| | | ADDITIONAL DUTIES AND RESPONSIBILITIES OF A PROJECT MANAGER |
| | | ABOVE LIST. |
| | 58. | |
| | 59• | |
| | 60. | • |
| | 61. | |
| | 62 | |

